

## ATTACHMENT A

Claims 1 - 11: (Cancelled)

12. (Original) A process for preparing cyclopentadienyl system anions of the formula (VII),

$$A \xrightarrow{R^{4B}} R^{1A}$$

$$R^{4B} \xrightarrow{R^{4A}} R^{2A}$$

$$R^{3A}$$

$$R^{4A}$$

$$R^{4A}$$

$$R^{4A}$$

where the variables have the following meanings:  $R^{1A}-R^{4A}$  are each, independently of one another,

hydrogen,  $C_1$ - $C_{20}$ -alkyl,  $C_2$ - $C_{20}$ -alkenyl,  $C_6$ - $C_{20}$ -aryl, alkylaryl having from 1 to 10 carbon atoms in the alkyl part and 6-20 carbon atoms in the aryl part,  $NR^{6A}_2$ ,  $N(SiR^{6A}_3)_2$ ,  $OR^{6A}$ ,  $OSiR^{6A}_3$ ,  $SiR^{6A}_3$  where the organic radicals  $R^{1A}$ - $R^{4A}$  may also be substituted by halogens and two vicinal radicals  $R^{1A}$ - $R^{4A}$  may also be joined to form a five- or six-membered ring, and/or two vicinal radicals  $R^{1A}$ - $R^{4A}$  are joined to form a heterocycle which contains at least one atom from the group consisting of N, P, O and S,

 $R^{6A}$  are each, independently of one another, hydrogen,  $C_1\text{-}C_{20}\text{-}alkyl,\ C_2\text{-}C_{20}\text{-}alkenyl,\ C_6\text{-}C_{20}\text{-}aryl,\ alkylaryl}$  having from 1 to 10 carbon atoms in the alkyl part and 6-20 carbon atoms in the aryl part and two geminal radicals  $R^{6A}$  may also be joined to form a five- or six-membered ring,

A is an unsubstituted, substituted or fused, heteroaromatic ring system,

 $R^{4B}$  are each, independently of one another, hydrogen,  $C_1$ - $C_{20}$ -alkyl,  $C_2$ - $C_{20}$ -alkenyl,  $C_6$ - $C_{20}$ -aryl, alkylaryl having from 1 to 10 carbon atoms in the alkyl part and 6-20 carbon atoms in the aryl part or  $SiR^{3B}_3$ , where the organic radicals  $R^{4B}$  may also be substituted by halogens and two geminal or vicinal radicals  $R^{4B}$  may also be joined to form a five- or six-membered ring and

 $R^{3B}$  are each, independently of one another, hydrogen,  $C_1$ - $C_{20}$ -alkyl,  $C_2$ - $C_{20}$ -alkenyl,  $C_6$ - $C_{20}$ -aryl or alkylaryl having from 1 to 10 carbon atoms in the alkyl part and 6-20 carbon atoms in the aryl part and two radicals  $R^{3B}$  may also be joined to form a five- or six-membered ring,

which comprises the step a) or a'), where, in step a), an A anion is reacted with a fulvene of the formula (VIIIa)

$$R^{4B}$$
 $R^{4B}$ 
 $R^{4A}$ 
 $R^{3A}$ 
 $R^{4A}$ 
 $R^{4A}$ 
 $R^{4B}$ 
 $R^{4A}$ 

or,

in step a'), an organometallic compound  $R^{4B}M^BX^B_{\ b}$  where  $M^B$  is a metal of group 1 or 2 of the Periodic Table of the Elements,

 $X^B$  is halogen,  $C_1$ - $C_{10}$ -alkyl, alkoxy having from 1 to 20 carbon atoms in the alkyl radical and/or from

6 to 20 carbon atoms in the aryl radical, or  ${\ensuremath{\mathsf{R}}}^{2B}$  and

b is 0 when  $M^B$  is a metal of group 1 of the Periodic Table of the Elements and is 1

when  $\ensuremath{\mathtt{M}}^{\ensuremath{\mathtt{B}}}$  is a metal of group 2 of the Periodic Table of the Elements,

is reacted with a fulvene of the formula (VIIIb):

$$R^{4B}$$
 $R^{4A}$ 
 $R^{3A}$ 
 $R^{4A}$ 
 $R^{4A}$ 
 $R^{4A}$ 

13. (Original) A process for preparing cyclopentadiene systems of the formula (VIIa)

$$R^{4B}$$
 $R^{4B}$ 
 $R^{4A}$ 
 $R^{3A}$ 
 $R^{4A}$ 
 $R^{4A}$ 
 $R^{4B}$ 
 $R^{4A}$ 

where the variables have the following meanings:  $E^{6A}-E^{10A} \text{ are each carbon, where in each case four}$   $\text{adjacent } E^{6A}-E^{10A} \text{ form a conjugated diene system}$  and the remaining  $E^{6A}-E^{10A} \text{ additionally bears a}$  hydrogen atom,

 $R^{1A}-R^{4A}$  are each, independently of one another, hydrogen,  $C_1-C_{20}$ -alkyl,  $C_2-C_{20}$ -alkenyl,  $C_6-C_{20}$ -aryl, alkylaryl having from 1 to 10 carbon atoms in the alkyl part and 6-20 carbon atoms in the aryl part,  $NR^{6A}_2$ ,  $N(SiR^{6A}_3)_2$ ,  $OR^{6A}$ ,  $OSiR^{6A}_3$ ,  $SiR^{6A}_3$ , where the organic radicals  $R^{1A}-R^{4A}$  may also be

substituted by halogens and two vicinal radicals  $R^{1A}-R^{4A}$  may also be joined to form a five- or six-membered ring, and/or two vicinal radicals  $R^{1A}-R^{4A}$  are joined to form a heterocycle which contains at least one atom from the group consisting of N, P, O and S,

- $R^{6A}$  are each, independently of one another, hydrogen,  $C_1$ - $C_{20}$ -alkyl,  $C_2$ - $C_{20}$ -alkenyl,  $C_6$ - $C_{20}$ -aryl, alkylaryl having from 1 to 10 carbon atoms in the alkyl part and 6-20 carbon atoms in the aryl part and two geminal radicals  $R^{6A}$  may also be joined to form a five- or six-membered ring,
- A is an unsubstituted, substituted or fused, heteroaromatic ring system,
- $R^{2B}$  are each, independently of one another, hydrogen,  $C_1$ - $C_{20}$ -alkyl,  $C_2$ - $C_{20}$ -alkenyl,  $C_6$ - $C_{20}$ -aryl, alkylaryl having from 1 to 10 carbon atoms in the alkyl part and 6-20 carbon atoms in the aryl part or  $SiR^{3B}_3$ , where the organic radicals  $R^{2B}$  may also be substituted by halogens and  $R^{2B}$  and A may also be joined to form a five- or six-membered ring,
- $R^{3B}$  are each, independently of one another, hydrogen,  $C_1$ - $C_{20}$ -alkyl,  $C_2$ - $C_{20}$ -alkenyl,  $C_6$ - $C_{20}$ -aryl or alkylaryl having from 1 to 10 carbon atoms in the alkyl part and 6-20 carbon atoms in the aryl part and two radicals  $R^{3B}$  may also be joined to form a five- or six-membered ring,

which comprises the following step:

a'') reaction of an A-CR<sup>2B</sup>R<sup>2B-</sup> anion with a cyclopentenone system of the formula (IX)

14. (New) A cyclopentadienyl system anion of the formula
 (VII),

$$A \xrightarrow{R^{4B}} R^{1A}$$

$$R^{4B}$$

$$R^{4B}$$

$$R^{3A}$$

$$R^{3A}$$

wherein the variables have the following meanings:  $R^{1A}-R^{4A}$  are each, independently of one another,

hydrogen,  $C_1$ - $C_{20}$ -alkyl,  $C_2$ - $C_{20}$ -alkenyl,  $C_6$ - $C_{20}$ -aryl, alkylaryl having from 1 to 10 carbon atoms in the alkyl part and 6-20 carbon atoms in the aryl part,  $NR^{6A}_2$ ,  $N(SiR^{6A}_3)_2$ ,  $OR^{6A}$ ,  $OSiR^{6A}_3$ ,  $SiR^{6A}_3$  where the organic radicals  $R^{1A}$ - $R^{4A}$  may also be substituted by halogens and two vicinal radicals  $R^{1A}$ - $R^{4A}$  may also be joined to form a five- or sixmembered ring, and/or two vicinal radicals  $R^{1A}$ - $R^{4A}$  are joined to form a heterocycle which contains at least one atom from the group consisting of N, P, O and S,

 $R^{6A}$  are each, independently of one another, hydrogen,  $C_1$ - $C_{20}$ -alkyl,  $C_2$ - $C_{20}$ -alkenyl,  $C_6$ - $C_{20}$ -aryl, alkylaryl having from 1 to 10 carbon atoms in the alkyl part and 6-20 carbon atoms in the aryl part and

two geminal radicals  $R^{6A}$  may also be joined to form a five- or six-membered ring,

- A is an unsubstituted, substituted or fused, heteroaromatic ring system,
- $R^{4B}$  are each, independently of one another, hydrogen,  $C_1$ - $C_{20}$ -alkyl,  $C_2$ - $C_{20}$ -alkenyl,  $C_6$ - $C_{20}$ -aryl, alkylaryl having from 1 to 10 carbon atoms in the alkyl part and 6-20 carbon atoms in the aryl part or  $SiR^{3B}_3$ , where the organic radicals  $R^{4B}$  may also be substituted by halogens and two geminal or vicinal radicals  $R^{4B}$  may also be joined to form a five- or six-membered ring and
- $R^{3B}$  are each, independently of one another, hydrogen,  $C_1$ - $C_{20}$ -alkyl,  $C_2$ - $C_{20}$ -alkenyl,  $C_6$ - $C_{20}$ -aryl or alkylaryl having from 1 to 10 carbon atoms in the alkyl part and 6-20 carbon atoms in the aryl part and two radicals  $R^{3B}$  may also be joined to form a five- or six-membered ring.
- 15. (New) A cyclopentadiene system of the formula (VIIa)

$$R^{4B}$$
 $R^{4B}$ 
 $R^{4A}$ 
 $R^{3A}$ 
 $R^{3A}$ 

where the variables have the following meanings:  $E^{6A}-E^{10A} \text{ are each carbon, where in each case four}$   $\text{adjacent } E^{6A}-E^{10A} \text{ form a conjugated diene system}$  and the remaining  $E^{6A}-E^{10A} \text{ additionally bears a}$  hydrogen atom,

- $R^{1A}-R^{4A}$  are each, independently of one another, hydrogen,  $C_1-C_{20}$ -alkyl,  $C_2-C_{20}$ -alkenyl,  $C_6-C_{20}$ -aryl, alkylaryl having from 1 to 10 carbon atoms in the alkyl part and 6-20 carbon atoms in the aryl part,  $NR^{6A}_2$ ,  $N(SiR^{6A}_3)_2$ ,  $OR^{6A}$ ,  $OSiR^{6A}_3$ ,  $SiR^{6A}_3$ , where the organic radicals  $R^{1A}-R^{4A}$  may also be substituted by halogens and two vicinal radicals  $R^{1A}-R^{4A}$  may also be joined to form a five- or sixmembered ring, and/or two vicinal radicals  $R^{1A}-R^{4A}$  are joined to form a heterocycle which contains at least one atom from the group consisting of N, P, O and S,
- $R^{6A}$  are each, independently of one another, hydrogen,  $C_1$ - $C_{20}$ -alkyl,  $C_2$ - $C_{20}$ -alkenyl,  $C_6$ - $C_{20}$ -aryl, alkylaryl having from 1 to 10 carbon atoms in the alkyl part and 6-20 carbon atoms in the aryl part and two geminal radicals  $R^{6A}$  may also be joined to form a five- or six-membered ring,
- A is an unsubstituted, substituted or fused, heteroaromatic ring system,
- $R^{2B}$  are each, independently of one another, hydrogen,  $C_1$ - $C_{20}$ -alkyl,  $C_2$ - $C_{20}$ -alkenyl,  $C_6$ - $C_{20}$ -aryl, alkylaryl having from 1 to 10 carbon atoms in the alkyl part and 6-20 carbon atoms in the aryl part or  $SiR^{3B}_3$ , where the organic radicals  $R^{2B}$  may also be substituted by halogens and  $R^{2B}$  and A may also be joined to form a five- or six-membered ring,
- $R^{3B}$  are each, independently of one another, hydrogen,  $C_1$ - $C_{20}$ -alkyl,  $C_2$ - $C_{20}$ -alkenyl,  $C_6$ - $C_{20}$ -aryl or alkylaryl having from 1 to 10 carbon atoms in the alkyl part and 6-20 carbon atoms in the aryl part

and two radicals  $R^{3\,B}$  may also be joined to form a five- or six-membered ring.